

REMARKS

Reconsideration and allowance are respectfully requested in the subject application.

Claims 1-8 are pending in the application. Applicant respectfully submits that the pending claims define patentable subject matter.

Claim Objections

Claims 1, 2 and 4-7 are objected to for the reasons set forth at page 2 of the Office Action. By this Amendment, Applicant has amended the claims to improve clarity. Accordingly, the Examiner is respectfully requested to withdraw the objection.

Claim Rejections - 35 U.S.C. § 112

Claims 1-8 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. By this Amendment, Applicant has amended the claims to improve clarity. Accordingly, the Examiner is respectfully requested to withdraw the § 112 rejection.

Claim Rejections - 35 U.S.C. § 103

Claims 1-6 and 8 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Mansingh et al. (US 6,751,660; hereafter “Mansingh”) in view of Fink et al. (US 7,043,633; hereafter “Fink”). Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Mansingh (US 6,751,660) in view of Fink (US 7,043,633) as applied to claim 1 above, and further in view of Clemm et al. (US 7,126,941; hereafter “Clemm”). Applicant respectfully traverses the rejections.

Independent claim 1 is directed to “network monitor for passively monitoring traffic on a dedicated packet-switched data network connecting network controllers controlling associated

network elements of an automatically switched optical transport network.” Claim 1 requires that the network is configured to:

filter protocol frames of a predefined protocol type by which said network controllers advertise a network topology and status of the transport network; and
extract from the filtered protocol frames information about the network topology and status of the transport network and display the network topology and status information graphically to a user.

Independent claim 8 is directed to a method of passively monitoring traffic and recites similar features in method format.

The Examiner concedes that Mansingh does not disclose passively monitoring the traffic, filtering protocol frames of a predefined protocol type by which the network controllers advertise a network topology and status of the transport network, and extracting from the filtered protocol frames information about the network topology and status of the transport network. However, the Examiner cites column 2, lines 37-47 of Fink for allegedly disclosing these features and asserts that “it would have been obvious to … passively monitor the traffic and extract the information as taught by Fink in the system of Mansingh in order to use the information for managing the network.”

Applicant respectfully submits that claims 1-8 would not have been rendered obvious in view of the cited references. In particular, Applicant respectfully submits that one of ordinary skill in the art would not have been motivated to modify and combine Mansingh and Fink to produce the claimed invention, and even if the teachings of the cited references were combined, they would not result in the claimed invention. To establish a *prima facie* case of obviousness

under 35 U.S.C. § 103, there must be some suggestion or motivation to modify or combine the reference teachings.¹

Mansingh discloses that network elements exchange Open Shortest Path First (OSPF messages), with which the network elements advertise the link states, in a Synchronous Optical Network (SONET). Each of the network elements constructs its own network topology view from the exchanged messages. A network management system (NMS) is connected to one of these network elements (called a topology host) and receives the topology information from this network element. The NMS does not receive the OSPF messages. Mansingh's system is essentially what was described in the present specification at page 3, last paragraph. However, there is exists a problem in that the operator has to rely on the topology view of the topology host, which can be flawed, in particular, when network elements of different vendors are combined in a network view in the topology host. Moreover, network elements do not communicate inconsistencies or errors in the OSPF messages, so that it is difficult to fix problems that might occur.

Fink discloses a sniffer for passively monitoring network traffic in a TCP/IP network to gather critical network topology information. This means the sniffer is capable of passively monitoring the IP network to extract topology information about this IP network. Conversely, the present invention proposes to monitor traffic on a dedicated packet-switched data network to extract topology information about an optical transport network, i.e., a completely different

¹ “To support the conclusion that the claimed invention is directed to obvious subject matter, either references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the reference.” *Ex parte Clapp* 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

network, the topology of which has nothing to do with the topology of the data network that is monitored.

Applicant respectfully submits that Fink's sniffer could not be applied to Mansingh's network, and even if applied, would not result in the claimed invention. In Mansingh's transport network, OSPF data is exchanged over the data communication channel (DCC), which is one byte in the transport overhead of a SONET (or SDH) frame. Fink's sniffer cannot sniff on the DCC, because this is inside the optical transport signal. Although Fink's sniffer could sniff on the Ethernet connection between the topology host and the NMS, there are no OSPF messages and the topology data that could be derived there are only the local view of the topology host. However, this would not help at all and would not provide any benefit over Mansingh's NMS. To monitor, the DCC byte would require to loop into the optical fiber link-which can hardly be done non-intrusive or passively, and to terminate and analyze the entire SONET frame. Even if one of ordinary skill in the art would do so, the sniffer would monitor the traffic on the optical transport network to extract topology information about this same optical transport network, and therefore would not monitor a dedicated packet network to extract topology information about a physically distinct optical network as required by the claimed invention.

Accordingly, Applicant respectfully submits that it is quite clear that one of ordinary skill in the art would not have been motivated to modify Mansingh based on Fink to produce the claimed invention, and even if the teachings of the cited references were combined, they would not result in the claimed invention. Thus, Applicant respectfully submits that claims 1-8 would not have been rendered obvious under 35 U.S.C. § 103.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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